IN THE SPECIFICATION

Please amend the paragraphs of the specification as follows:

Page 4, paragraph no. 1009:

[1009] The structure of [[a]] reverse channels transmitted by [[a]] base stations is illustrated in **FIG. 1**. The reverse Pilot Channel, the Dedicated Control Channel, and the Fundamental Channel remain unchanged. The Supplemental Channel structure remains unchanged for Radio Configurations 1 through 6. The new reverse control channels are the Reverse Rate Indicator Channel (R-RICH), the Reverse Channel Quality Indicator Channel (R-CQICH), and the Reverse Acknowledgment Channel (R-ACKCH).

Page 4, paragraph no. 1010:

[1010] The structure of [[a]] forward channels transmitted by [[a]] base stations ~~104(i)~~ is illustrated in **FIG. 2**. The Forward Pilot Channel, Transmit Diversity Pilot Channel, Auxiliary Pilot Channel, Auxiliary Transmit Diversity Pilot Channel, Synch Channel, Paging Channel, Broadcast Control Channel, Quick Paging Channel, Common Power Control Channel, Common Assignment Channel, Dedicated Control Channel, Forward Fundamental Channel, Forward Supplemental Channel, and Forward Supplemental Code Channels are the same as their counterparts in the above-mentioned IS-2000 standard. The Forward Packet Data Channel, the optional Forward Primary Packet Data Control Channel, and the Forward Secondary Packet Data Control Channel are channels defined for 1xEV-DV packet data operation.

Page 7, paragraph no. 1018:

[1018] In one aspect of the invention, the above-stated needs are addressed by generating a first control channel comprising an indicator that a traffic channel is to be shared and [[a]] parameters of [[a]] the traffic ~~channels~~ channel; and generating at least one second control channel, each of said at least one second control channel comprising an identity of at

least one subscriber station and information enabling the subscriber station to demodulate the traffic channel.

Page 7, paragraph nos. 1020-1024:

[1020] **FIG.1** illustrates a structure of [[a]] reverse channels transmitted by [[a]] base stations;

[1021] **FIG. 2** illustrates a structure of ~~a reverse~~ forward channels transmitted by [[a]] base stations;

[1022] **FIG. 3** illustrates an exemplary forward packet data channel;

[1023] **FIG. 4** illustrates a sub-packet structure in accordance with one embodiment;

[1024] **FIG. 5** illustrates a sub-packet structure in accordance with one embodiment;

Page 10, paragraph no. 1045:

[1045] The term non-homogenous soft/softer hand-off delay is used exclusively herein to indicate that the soft/softer hand-off delays are sector specific and therefore may not be uniform across the sectors of an Access Network.

Page 11, paragraph no. 1051:

[1051] FIG. 4 illustrates a sub-packet structure in accordance with one embodiment. The sub-packet 400 comprises one or more slots 402(i). Each of the slots 402(i) is further time-divided into sub-slots 404(i). (Only one slot sub-division is shown.) In one embodiment, there are 2, 4 or 8 equal sub-slots 404(i). However, one skilled in the art understands that the sub division is an implementation choice and other sub-divisions are within the scope of the invention. The data to a subscriber station are provided in one or more of the sub-slots 404(i). Each subscriber station can use a number of sub-slots 404(i), and the number of sub-slots for each ~~of the~~ subscriber station utilizing each of the sub-packets 402(i) can be different.

Page 13, paragraph no. 1055:

[1055] Similarly, the F-SPDCCH **602** is utilized as defined in the 1xEV-DV proposal with the following modification. One of the values of the MAC ID of block **604** is reserved to identify that a sub-packet of the F-PDCH is to be shared. In accordance with one embodiment, the MAC ID value that identifies ~~that the~~ a sub-packet is to be shared is all ones. Because all the subscriber stations for which the shared sub-packets are intended must reliably receive the information content of channel **602**, channel **602** is transmitted at power determined by the power requirement of the subscriber station, for which the control channel **602** is intended, with the worst forward link quality metric. Upon receiving the channel **602**, each of the subscriber stations demodulates and decodes the MAC ID of block **604**. If the MAC ID indicates that the sub-packet is for one of the subscriber stations, the identified subscriber station processes the sub-packet in accordance with the procedures outlined in the 1xEV-DV proposal.

Page 15, paragraph no. 1059:

[1059] One of ordinary skill in the art appreciates that limiting a number of subscriber ~~station~~ stations sharing the sub-packet yields further simplification of the above-described embodiments. Consequently, in one embodiment allowing only two subscriber station to share the sub-packet, the existing structure of the F-PPDCCH and a modified structure of the F-SPDCCH can be utilized. Thus, there is no need for an additional control channel.

Page 15, paragraph no. 1061:

[1061] **FIG. 7** illustrates a structure of the modified F-SPDCCH **700**. The modified F-SPDCCH **700** comprises information enabling the two subscriber stations to demodulate the F-PDCH. Therefore, the F-SPDCCH **700** comprises [[and]] MAC IDs for [[each]] two subscriber stations **702(1)**, **702(2)**, ARQ IDs **704(1)**, **704(2)**, sub-packet IDs **706(1)**, **706(2)**, encoder packet sizes **708(1)**, **708(2)**, and number of Walsh channels used **710(1)**, **710(2)**. The structure can be further simplified if the second subscriber station is assumed to use a number of Walsh channels less than or equal to the number of Walsh channels of the ~~second~~

first subscriber station. Then the modified F-SPDCCH **700** comprises only one of the blocks **710(1), 710(2)**.

Page 16, paragraph no. 1063:

[1063] The modified F-SPDCCH **700** is transmitted even if the F-PDCH is intended for only one subscriber station. In this case, the MAC ID **702(2)**, is identical to the **MAC ID 702(1)**. Consequently, the subscriber stations ignore the interpretation of block **704(2)** as ARQ ID, **706(2)** as sub-packet ID, **708(2)** as encoder packet size, and **710(2)** as number of Walsh channels used **710(1)**. Consequently, these blocks can be used for any additional information. The subscriber with a MAC ID [[of]] which is identical to the decoded MAC ID acquires the remaining information from the modified F-SPDCCH **700**, and processes the sub-packet of the F-PDCH in accordance with procedures outlined in the 1xEV-DV proposal.

Page 17, paragraph nos. 1065-1067:

[1065] **FIG. 8** illustrates a control channel structure comprising the F-SPDCCH **800**[[,]] and [[the]] a CDM control channel **802**. The F-SPDCCH **800** comprises [[an]] a MAC ID **804**, ARQ ID **806**, sub-packet ID **808**, encoder packet size **810**, and ~~numbers~~ number of Walsh channels used **812** for one of the possible two shared channels, and [[the]] a CDM indicator **814**.

[1066] The CDM channel **802** comprises [[an]] a MAC ID **816**, ARQ ID **818**, sub-packet ID **820**, encoder packet size **822**, and number of Walsh channels used **824** for the second shared channel if it is used. If the F-PDCH sub-packet is not shared, the CDM channel **802** is not transmitted for that sub-packet.

[1067] In one embodiment, the F-SPDCCH **800** and, if used, the CDM control channel **802** are transmitted concurrently. Because the subscriber stations do not know[[,]] whether the CDM control channel **802** is transmitted or not, each of the subscriber stations accumulates data from both the F-SPDCCH **800** and [[all]] the CDM channel **802**, and then post processes the accumulated data. Because both subscriber stations to share the sub-packet must reliably receive the F-SPDCCH **800**, the F-SPDCCH **800** is transmitted at a

power determined by power requirement of the subscriber station with the worst forward link quality metric [[fro]] for which the F-SPDCCH **800** is intended. Because the CDM control channel **802** is intended for one of the subscriber stations and the base station has [[an]] information about the subscriber station's forward link quality metric, the base station transmits the CDM control channel **802** at the minimum power determined by power requirement of the subscriber station.

Page 17, paragraph no. 1069:

[1069] The subscriber stations, with MAC IDs [[of]] which are not identical with the decoded MAC ID, decode the CDM indicator **814**. If the CDM indicator [[**X214**]] **814** indicates that no CDM control channel **802** is transmitted, the subscriber stations cease further processing; otherwise the subscriber stations decode the MAC ID **816**. The subscriber station, with a MAC ID [[of]] which is identical with the decoded MAC ID, acquires the remaining information from the CDM control channel **802**, and processes the sub-packet of the F-PDCH in accordance with the information. The subscriber stations, with MAC IDs [[of]] which are not identical with the decoded MAC ID, cease further processing.

Page 18, paragraph no. 1072:

[1072] Similarly, the function and the structure of the ~~F-PSDCCH~~ F-SPDCCH is identical to the function and the structure of the ~~F-PSDCCH~~ F-SPDCCH as described above with regards to the CDM based sub-packet sharing with the following modification. If the MAC ID indicates that a sub-packet of the F-PDCH is to be shared, the remaining bits of the F-SPDCCH are interpreted to indicate parameters of the shared sub-packet, which comprise a number of sub-slots into which the sub-packet is subdivided and the number of subscriber stations sharing the sub-packet. Consequently, each of the subscriber stations demodulates the modified F-SPDCCH and decodes the MAC ID. If the MAC ID indicates that the sub-packet is for the subscriber station, the identified subscriber station processes the sub-packet in accordance to procedures outlined in the 1xEV-DV proposal.

Page 20, paragraph no. 1075:

[1075] In another embodiment utilizing the time-division of the slots, the information is provided on the F-PPDCCH, the F-SPDCCH, and one TDM channel for all the subscriber stations sharing the sub-packet. The TDM channel is modulated by the information enabling each of the subscriber stations to demodulate the F-PDCH. The information for all the subscriber ~~station~~ stations is time multiplexed and then encoded and modulated. Consequently, the CDM channel comprises concatenation of the CDM channels **900(i)** as described in **FIG. 9.** In one embodiment, the current F-SPDCCH coding and modulation is used for the CDM channel. Consequently, the method of acquiring the information is the same as described above, with the exception that all the subscriber stations tune to the CDM channel, demodulate and decode the whole information. The subscriber station then examines the MAC IDs. If the subscriber station fails to find a MAC ID indicating that the subscriber station is to share the sub-packet, the subscriber station ceases further processing. If a subscriber finds a MAC ID indicating that the following portion of the CDM channel contains information for the subscriber station, the subscriber station reads the rest of the information, and processes the sub-packet on the F-PDCH in accordance to the gathered information. Furthermore, each of the subscriber stations examines each portion of the F-SPDCCH containing the information about sub-slot positions. Consequently, the CDM channel does not need to contain the starting sub-slot for each subscriber station because the subscriber stations have acquired the information on the duration of sub-slots intended for the other subscriber stations.

Page 21, paragraph no. 1078:

[1078] To acquire information enabling the subscriber station identified by one of the MAC IDs in control channel **1002** to demodulate the F-PDCH, there must exist a relationship between the subscriber station MAC ID and the control channel **1008(i)** comprising the information for the subscriber station. In one embodiment, the relationship is determined by a position of the blocks **1006(i)** within the channel **1002**, and an index of the Walsh code encoding the control channel **1008(i)**. Thus, for example increasing order of MAC ID position in the control channel **1002** means increasing index of the Walsh code encoding the control channel **1008(i)**. The relationship between the control channel's

Walsh code and a MAC ID may be pre-determined or changeable by signaling messages. However, one of ordinary skills in the art appreciates that other relationships are within the scope of the invention. Because each ~~of the~~ additional control channel **1008(i)** is intended for one of the subscriber stations and the base station has an information about the subscriber station forward link quality metric, the base station transmits each of the channels **1008(i)** at the minimum power determined by power requirement of the subscriber station.

Page 22, paragraph nos. 1081-1082:

[1081] To receive the control channels **1102(i)** the subscriber stations must know modulation parameters of the control channels **1102(i)**. In one embodiment, the modulation parameters and the number of possible control channels are pre-determined. In one embodiment, the modulation parameters comprise different Walsh codes. Because in accordance with the embodiment, there is no relationship between one subscriber station and one control channel **1102(i)**, the subscriber stations must demodulate all the control channels **1102(i)**. Although a number of transmitted control channels **1102(i)** is equal to a number of subscriber stations for which information is [[send]] sent on a F-PDCH because the number of subscriber stations may change in accordance with the granularity of the F-PDCH as described above, the number of transmitted control channels **1102(i)** changes.

[1082] In one embodiment, the control channels ~~**1108(i)**~~ **1102(i)** are transmitted concurrently, consequently, each of the subscriber stations accumulates data for all the channels ~~**1108(i)**~~ **1102(i)**, and then post processes the accumulated data. During the post processing, each of the subscriber stations demodulates one of the control channels **1102(i)** and decodes a MAC ID of block **1104(i)**. The subscriber station with MAC ID identical to the MAC ID of block **1104(i)** demodulates the remaining information, and processes the sub-packet on the F-PDCH in accordance to the gathered information. If the MAC ID of block **1104(i)** indicates that the channel ~~**1108(i)**~~ **1102(i)** does not contain information for the subscriber station, the subscriber station ceases further post processing of the channel and repeats the procedure for the next channel ~~**1108(i)**~~ **1102(i)**. Because as discussed, the

subscriber station does not have information about the number of transmitted control channels ~~1108(i)~~ 1102(i), unless the subscriber station finds a MAC ID indicating that the channel ~~1108(i)~~ 1102(i) contains information for the subscriber station, the subscriber station must attempt to demodulate all possible control channels ~~1108(i)~~ 1102(i).

Page 24, paragraph nos. 1084-1085:

[1084] To receive the control channels **1202(i)** the subscriber stations must know modulation parameters of the control channels **1202(i)**. In one embodiment, the modulation parameters and the number of possible control channels are pre-determined. Furthermore, there exists a relationship between the control channels **1202(i)** and the modulation parameters. In one embodiment, the modulation parameters comprise different Walsh codes, and the transmitted control channels **1202(i)** are encoded by Walsh codes with sequential indexes. However, one of ordinary skill in the art appreciates that other relationships are within the scope of the invention. Because in accordance with the embodiment, there is no relationship between one subscriber station and one control channel **1202(i)**, the subscriber stations must demodulate all the transmitted control channels **1202(i)**. Although a number of transmitted control channels **1202(i)** is equal to a number of subscriber stations for which information is [[send]] sent on a F-PDCH because the number of subscriber stations may change in accordance with the granularity of the F-PDCH as described above, the number of transmitted control channels **1202(i)** changes.

[1085] In one embodiment, the channels **1202(i)** are transmitted concurrently, consequently, each of the subscriber stations accumulates data from all the channels **1202(i)**, and then post processes the accumulated data. During the post processing, each of the subscriber stations first demodulates the control channel **1202(1)** and decodes a MAC ID of block **1204**. The subscriber station with MAC ID identical to the MAC ID of block **1204** decodes the remaining information, and processes the sub-packet on the F-PDCH in accordance with the gathered information. The subscriber stations whose MAC IDs are not identical to the MAC ID of block **1204** decode the number of transmitted control channels **1202(i)** of block **1214**, cease further post processing of the control channel **1202(1)**, and

repeat the procedure for the next channel ~~1208(i)~~ 1202(i). Therefore, the subscriber stations have information about the number of transmitted control channels ~~1208(i)~~ 1202(i). Because as discussed there exists a relationship between the number of transmitted control channels ~~1208(i)~~ 1202(i), unless the subscriber station finds a MAC ID indicating that the channel ~~1208(i)~~ 1202(i) contains information for the subscriber station, the subscriber station attempts to demodulate only the transmitted channels ~~1208(i)~~ 1202(i).

Page 26, paragraph no. 1090:

[1090] In another embodiment, the subscriber station whose MAC ID is not identical to the MAC ID of block **1204** ~~measure~~ measures the power of the control channel **1202(i)** from the range **1202(2)-1202(m)**. If the measured power is higher than the power required by the subscriber station, the control channel **1202(i)** containing the information for the subscriber station is likely in the range **1202(i) – 1202(m)**. The subscriber station can continue measuring the power, using any determination method, e.g., the above-described binary search or select a control channel from the determined range and attempt a demodulation.

Page 27, paragraph nos. 1092-1093:

[1092] Consequently, a subscriber station may use [[ant]] any determination method applicable for ordered set, e.g., one of the above-described methods.

[1093] The control channel(s) structure in accordance with another embodiment is illustrated in **FIG. 13**. Each of the control channels **1302(i)** contains all the information a subscriber station needs to decode the F-PDCH. Therefore, in one embodiment, each of the channels **1302(i)** comprises a MAC ID block **1306(i)** identifying a subscriber station for which the channel **1302(i)** is intended, a partial MAC ID block **1308(i)** identifying subscriber stations for which another control channel **1302(i)** is intended, and information block **1310(i)**, enabling a subscriber station identified by the MAC ID of block **1306(i)** to demodulate the F-PDCH. In addition, one of the control channels **1302(i)**, e.g., a control channel **1302(1)** comprises a block **1304** identifying a number of control channels **1302(i)**. The identification

of a partial MAC ID is an implementation issue. In one embodiment, the MAC ID is expressed as an 8-bit number. Therefore, a subset of the bits identifies a partial MAC ID. In one embodiment, the subset comprises the most significant bits of a MAC ID.

Page 28, paragraph no. 1098:

[1098] If the block **1304** indicates that there are *m* additional control channels ~~**1118(i)**~~ **1302(i)**, the determination proceeds as follows.

Page 29, paragraph nos. 1100-1101:

[1100] The subscriber stations with MAC ID not matching the partial MAC ID of block **1308(1)** demodulate the next control channel **1302(i)**, i.e., the control channel **1302(2)**. The subscriber station with MAC ID identical to the MAC ID of block ~~**1316(2)**~~ **1306(2)** decodes the remaining information of the control channel **1302(2)**, and processes the sub-packet on the F-PDCH in accordance to the gathered information. The subscriber stations with MAC ID matching the partial MAC ID of block ~~**1318(2)**~~ **1308(2)** follow the processing as outlined with respect to MAC ID in block **1308(1)**. (Thus, the subscriber stations demodulate and decode the control channel ~~**1318(m-1)**~~ **1308(m-1)**, to acquire the MAC ID of block ~~**1314(m-1)**~~ **1306(m-1)**).

[1101] The method is repeated until the subscriber station ~~exhaust~~ exhausts all the control channels **1302(i)**, or finds a control channel **1302(i)** with MAC ID indicating that the control channel **1302(i)** is intended for the subscriber station.